

Enterprise small cells

– an essential deployment guide for IT

A simple guide to deploying small cells in small to medium offices and warehouses

Introduction

Small cell enterprise network rollout has become considerably simpler, cheaper and quicker than building macro cellular networks and compares to the ease of Wi-Fi rollouts.

Key development steps

- 1 Survey
- 2 Design
- 3 Install
- 4 Maintain



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Ease factor: Simple
Takes no more than 2 hours

1. Survey

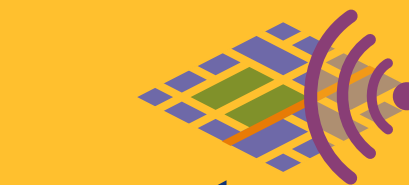
A Who is going to use your small cell network and how will they use it? **End-users and functions.**



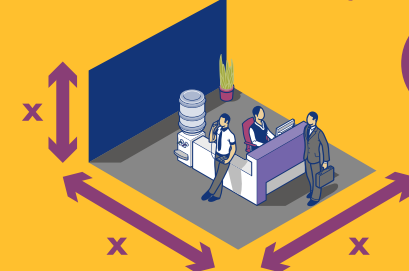
B What are the coverage and capacity requirements? **Weigh them up.**



C What's already in place that we need to consider? **Take the Walk Test.**



D What are the physical parameters to plan around? **Map it out.**



Tip:
Use common sense
Do you really need coverage in the back of the store room?
Where do people spend most of their time?
Where is the IT room?
Any spare cables in the building?

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Ease factor: It's not rocket science.
Can be accomplished at the same time as the survey

2. Design

Good design = great network performance and user satisfaction

and mitigates potential interference with the existing macro network.



Tip:
Existing enterprise Wi-Fi design can often be used as a design guideline.

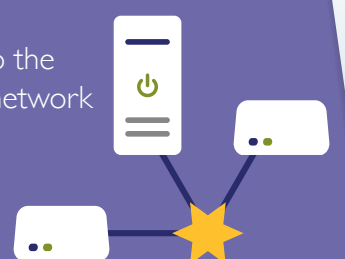
A **Identify** success metrics eg. capacity, signal coverage, data throughput per floor area.



B **Establish** available / required backhaul capacity.

C **Experiment** with placement and numbers of small cells using a Portable Design tool to visualize the desired balance of coverage, data throughput and capacity. Document your design and store it for future use.

D **Plan** connectivity to the external backhaul network – cabling, network equipment.



Consider:

- Ease of installation
- Maintainability
- Access to power
- Security
- Aesthetics (check with the building owner)

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Ease factor: Bring in your deployment teams
Takes no more than 1 week

3. Build

A **Installation**
Mount small cells according to the design plan and connect with power and backhaul network.



B **Commissioning**
Power up and activate small cells according to vendor-specific implementation and the wireless carrier's requirements and back-end systems.



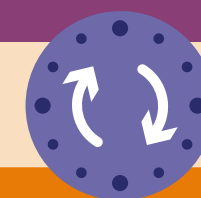
C **Acceptance**
Test the small cell network to validate functionality and performance.



Test:

- Can you make a call?
- Do you get service where you expected?
- Can you get a sensible data rate?
- Does it work between units and to the outside?

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Ease factor: Centrally-stored documentation; simple technology upgrading and scalability.

4. Maintain

Treat enterprise small cells like a Wi-Fi network:

Do NOTHING!
Don't switch anything off. From time-to-time your service provider might drop by with a technology upgrade.
Otherwise – just enjoy!



Summary

Small cell enterprise networks help close the shortfall in coverage and capacity experienced by many businesses and organisations. **DEPLOY TODAY**